

MAY 27 2008

**Amendment to the Claims:**

The listing of claims will replace all prior versions, and listings of claims in the application:

**Listing of Claims:**

**1. (Currently Amended)** A method of user policy management in a communication system, comprising:

receiving user-entered policies in a ~~user-understandable~~ representation understandable to naïve users and capable of translation into a formal executable language;

translating said policies from said ~~user-understandable~~ representation into an executable feature language capable of execution by said communication system;

translating said policies from said executable feature language into a policy language and detecting common feature interaction errors between said policies;

analyzing said feature interaction errors to identify errors that are common to naïve users;

reporting said errors that are common to the user in said user-understandable representation;

providing the user with a recommendation in said representation understandable to the naïve users for correction of said feature interaction errors and re-integration of said policies in said executable feature language; and

uploading said policies for execution by said communication system.

**2. (Currently Amended)** The method of claim 1, wherein said ~~user-understandable~~ representation is a Web browser interface.

**3. (Original)** The method of claim 1, wherein said executable feature language is Call Processing Language (CPL).

**4. (Original)** The method of claim 1, wherein said policy language is

Feature Interaction Analysis Tool (FIAT).

**5. (Currently Amended)** The method of claim 1, wherein said step of receiving user-entered policies in said ~~user-understandable~~ representation further comprises receiving user-entered operations on said policies, including:

Create: for creating and activating a new policy;

Modify: for modifying a selected policy;

Delete: for deleting a selected policy;

Duplicate: for making a copy of a selected policy;

Deactivate: for deactivating a selected policy;

Activate: for activating a selected inactive policy;

Set Priority: for setting priority of a selected policy to one of either an absolute priority or a relative priority;

Validate: for detecting and reporting conflicts among active ones of said policies; and

Approve: for approving and enabling selected policies for execution.

**6. (Original)** The method of claim 1, wherein each said policy includes:

a name for use as a unique identifier;

a priority, expressed as a numerical value;

an operation, for application to a call within said communication system;

a precondition, based on characteristics of a caller or callee, whereby said policy is general in the event that the precondition is a domain of values, and is specialized in the event that the precondition relates to particular values;

a target, for said operation;

an optional list of exceptions to said precondition in the event that that said policy is general; and

a time constraint, during which the policy is active.

- 7. (Original)** The method of claim 6, wherein individual ones of said policies are translated into said executable feature language as scripts representing individual branches of a decision tree, with explicit priorities allocated among said branches.
- 8. (Original)** The method of claim 7, wherein said priorities are allocated by numerically naming the individual branches.
- 9. (Currently Amended)** The method of claim 8, wherein said step of translating said policies from said executable feature language into said policy language further comprises visiting successive ones of said branches downwardly and producing corresponding rules, using the following mapping: name policy to name rule; priority policy to number rules; operation policy to result rule; precondition policy to triggering event rule; target policy to result rule; exceptions policy to constraint rule; and time constraints policy to precondition rule.
- 10. (Previously Presented)** The method of claim 9, wherein said step of analyzing said feature interaction errors to identify errors that are common to naïve users further includes determining whether each said policy is general or specialized and then comparing relative priorities of said policies.
- 11. (Previously Presented)** The method of claim 10, wherein said step of reporting said errors further includes identifying a category of incoherence, assigning a role of each policy in the occurrences of said errors, and providing examples of possible misbehavior resulting from said feature interaction errors.

**12. (Currently Amended)** The method of claim 11, wherein said errors that are common to the naïve users and are reported in said reporting step include:

Redundancy: whereby two general policies are active;

Shadowing: whereby a general policy overrides a specific policy such that the specific policy can never be triggered;

Specialization: whereby a specific policy is selected over a general policy of lower priority; and

Conflict: whereby two policies have overlapping preconditions but with different resulting actions.

**13. (Original)** The method of claim 12, wherein said Redundancy error includes a Conflict with Redundancy error whereby a general policy and an exception for the other general policy lead to different resulting actions.

**14. (Previously Presented)** The method of claim 13, wherein said step of providing the user with a recommendation for correction of said feature interaction errors includes the following suggestions:

edit a policy;

disable a policy;

set the priority of a first policy above or below the priority of a second policy;

add an exception to a general rule; and

tolerate the interaction and no longer report the interaction.

**15. (Currently Amended)** A method of user policy management in a policy-based system, comprising:

receiving user-entered policies in a ~~user-understandable~~ representation understandable to naïve users and capable of translation into a formal executable language;

translating said policies from said ~~user-understandable~~ representation into an executable feature language capable of execution by said policy-based system;

translating said policies from said executable feature language into a policy language and detecting common feature interaction errors between said policies;

analyzing said feature interaction errors to identify errors that are common to naïve users;

reporting said errors that are common to the user in said ~~user-understandable~~ representation;

providing the user with a recommendation in said representation understandable to naïve users for correction of said feature interaction errors and re-integration of said policies in said executable feature language; and

uploading said policies for execution by said policy-based system.

**16. (Currently Amended)** The method of claim 15, wherein said ~~user-understandable~~ representation is a Web browser interface.

**17. (Previously Presented)** The method of claim 15, wherein said executable feature language is Call Processing Language (CPL).

**18. (Previously Presented)** The method of claim 15, wherein said policy language is Feature Interaction Analysis Tool (FIAT).

**19. (Currently Amended)** The method of claim 15, wherein said step of receiving user-entered policies in said ~~user-understandable~~ representation further comprises receiving user-entered operations on said policies, including:

Create: for creating and activating a new policy;

Modify: for modifying a selected policy;

Delete: for deleting a selected policy;

Duplicate: for making a copy of a selected policy;

Deactivate: for deactivating a selected policy;

Activate: for activating a selected inactive policy;

Set Priority: for setting priority of a selected policy to one of either an absolute priority or a relative priority;

Validate: for detecting and reporting conflicts among active ones of said policies; and

Approve: for approving and enabling selected policies for execution.

**20. (Previously Presented)** The method of claim 15, wherein each said policy includes:

a name for use as a unique identifier;

a priority, expressed as a numerical value;

an operation, for application to a call within said policy-based system;

a precondition, based on characteristics of a caller or callee, whereby said policy is general in the event that the precondition is a domain of values, and is specialized in the event that the precondition relates to particular values;

a target, for said operation;

an optional list of exceptions to said precondition in the event that that said policy is general; and a time constraint, during which the policy is active.

**21. (Previously Presented)** The method of claim 20, wherein individual ones of said policies are translated into said executable feature language as scripts representing individual branches of a decision tree, with explicit priorities allocated among said branches.

**22. (Previously Presented)** The method of claim 21, wherein said priorities are allocated by numerically naming the individual branches.

**23. (Currently Amended)** The method of claim 22, wherein said step of translating said policies from said executable feature language into said policy language further comprises visiting successive ones of said branches downwardly and producing corresponding rules, using the following mapping: name policy to name rule; priority policy to number rules; operation policy to result rule; precondition policy to triggering event rule; target policy to result rule; exceptions policy to constraint rule; and time constraints policy to precondition rule.

**24. (Previously Presented)** The method of claim 23, wherein said step of analyzing said feature interaction errors to identify errors that are common to naïve users further includes determining whether each said policy is general or specialized and then comparing relative priorities of said policies.

**25. (Previously Presented)** The method of claim 24, wherein said step of reporting said errors further includes identifying a category of incoherence, assigning a role of each policy in the occurrences of said errors, and providing examples of possible misbehavior resulting from said feature interaction errors.

**26. (Previously Presented)** The method of claim 25, wherein said errors that are common to naïve users and are reported in said reporting step include:

Redundancy: whereby two general policies are active;

Shadowing: whereby a general policy overrides a specific policy such that the specific policy can never be triggered;

Specialization: whereby a specific policy is selected over a general policy of lower priority; and

Conflict: whereby two policies have overlapping preconditions but with different resulting actions.

**27. (Previously Presented)** The method of claim 26, wherein said Redundancy error includes a Conflict with Redundancy error whereby a general policy and an exception for the other general policy lead to different resulting actions.

**28. (Previously Presented)** The method of claim 27, wherein said step of providing the user with a recommendation for correction of said feature interaction errors includes the following suggestions:

edit a policy,

disable a policy;

set the priority of a first policy above or below the priority of a second policy;

add an exception to a general rule; and

tolerate the interaction and no longer report the interaction.